Long-lived flow

,   ,

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Reducing Entry Flow in Cache Memory Measuring Traffic and Long-Lived Flows

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Long-lived flow
, Sample and hold   Multistage Filter
.   Long-lived flow   ,   80%
20%
COMNET III   .

1.

,
DoS(Denial Of Service)
.

[8].

,   ,   ,

.

Large Flow
[10]. Large Flow   1%
. Large Flow
[6,7]

.

.

. IETF RTFM(Real

Time Flow Measurement)[9]

.

Sample and hold   Multistage Filter

.

Long-lived flow   ,   80%

20%

.

2.

"Net Flow"   [2]

[3].   IP Protocol Type, Type of
Service   Input interface identifier

.   .

,

Sample
and hold   Multistage Filter   [1].

poisson   [4]   R

3

, 4   5   R = T   (1-   )

3.

sample and hold   multistage filter

large-flow

3.2 Multistage filter

[1].   T

R

R = T   (1)
.(, 0.5   1)

,   R

TCP

, source   destination   TCP
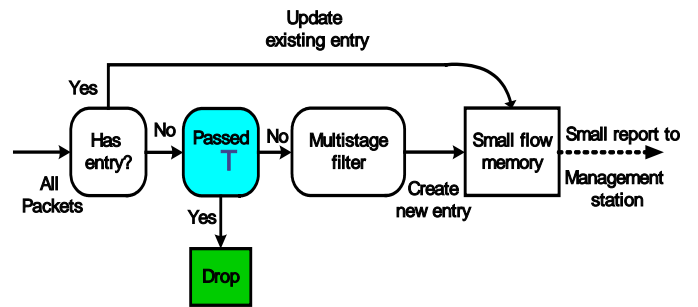
<   2> Multistage filter
Flow

3.1 Sample and hold

Sample and hold   P

,   [1].   P

P

R

R   sample and hold   R =
T   (1-   )

1   T
T

4.

COMNET   ,
3   [5]   , sample and
hold   multistage filter   flow
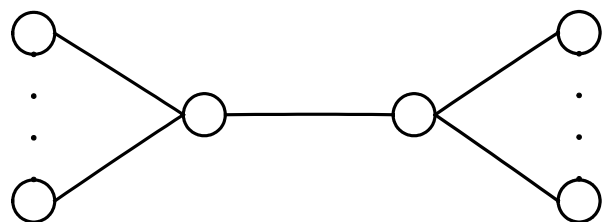
Poisson   ,

(interarrival)

TCP
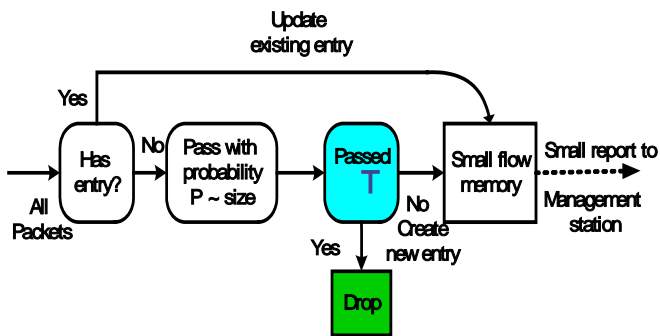
<   1> Sample and hold
Flow

<   3>

2

4.1 Sample and hold

Sample   0   30   10%
                    4376   2312
               .   large flow   1%   6
                  24
large   18   large flow
     2%   1   large flow
  .
         4   .

                         large-flow
              1%   2%
                  .   ,
                                .   1

     .

10, 20, 30, 60   large-
flow   1%   .   ,   10
1%   2%   .

                 .

<   6> Multistage filter

         7   0.8
               .   10   large-
flow   1%   large-flow
     large-flow   0.8
10%   .   2%
     0   .   0.8
                                          20%

                 .

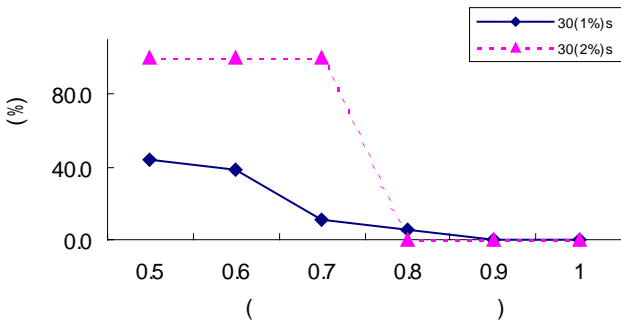<   4> Sample and hold

         5   large-flow

                         .

0.8   , 1%   large-flow   5.6%
     , 2%   0%   .

<   7> Multistage filter

5.

sample and hold   multistage filter
               80%

                                   20%
                  .   large-flow
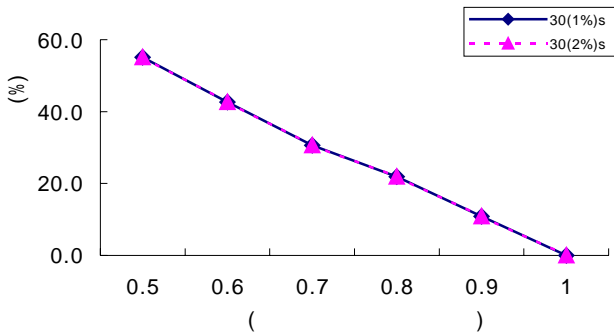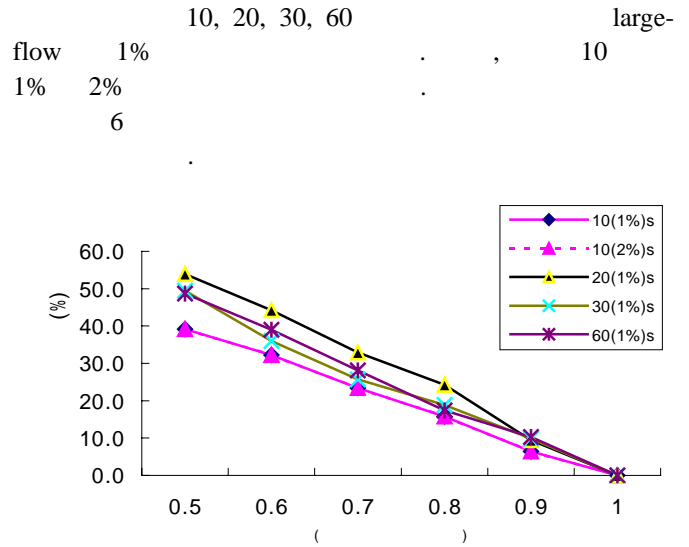
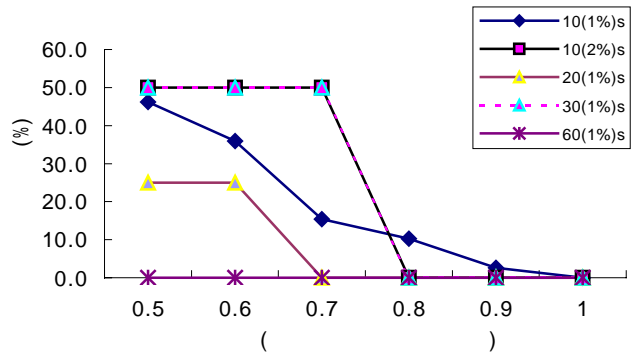<   5> Sample and hold

4.2 Multistage filter

                                                      30
sample and hold   large-flow   .
                  .   large-flow

   . 1   1024   .

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